IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant:	Eytchison	Patent Application
Application No.:	09/476,419	Group Art Unit: 2142
Filed:	December 30, 1999	Examiner: Blair, Douglas B.

For: A RESOURCE MANAGER FOR PROVIDING USER-DEPENDENT ACCESS

CONTROL FOR A NETWORK OF CONSUMER ELECTRONIC DEVICES
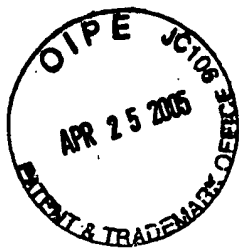
SUPPLEMENTAL APPEAL BRIEF

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SONY-50M2430.01/ACM/MJB
Serial No.: 09/476,419

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Real Party in Interest

The assignees of the present invention are Sony Corporation and Sony Electronics Inc.

Related Appeals and Interferences

There are no related appeals or interferences known to the Appellants.

Status of Claims

Claims 1-42 have been rejected. This appeal involves Claims 1-42.

Status of Amendments

An amendment has not been filed subsequent to the final rejection.

Summary of Claimed Subject Matter

Independent Claims 1, 9, 17, 24, and 33 of the present application pertain to embodiments associated with a resource manager that provides user-specific access control for services offered via a network of consumer electronic devices. By configuring the network's resource manager with an access policy that dictates a condition under which a particular service request is permissible for a specific user, the claimed embodiments of the present invention advantageously allow for dictating the conditions under which services or use of network resources are granted to a particular user.

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As recited in Claims 1-8, methods of operating a plurality of consumer electronic devices coupled together to form a network 200 (Figure 2) are described. Figure 7 of the application depicts a flowchart illustrating steps of these embodiments. A resource manager 320 (Figure 3) receives 710 a service request from a user. The service request includes a request for a service available via network 200 with regard to the specific device that provides that service, and it also includes a user identity. Resource manager 320 determines 720 the identity of the user making the service request, checks 730 an access policy statement database, and determines 740 whether the service request violates any access policy statements. If it is determined that no policy statement is violated, resource manger 320 determines 755 if the resources necessary to carry out the requested service are available. If the resources are available, resource manager 320 sends 760 appropriate control signals to the devices (or device proxies) of network 200 to cause the devices to carry out the requested service. Reference is made at least to page 14, line 25, through page 17, line 10, of the specification. Reference is further made at least to page 17, line 12, through page 19, line 17, of the specification.

Claims 9-42 recite embodiments of the invention similar to those described above in conjunction with the flowchart of Figure 7 of the application. Moreover, independent Claims 24 and 33 recite the limitation that the user does not specify an electronic device of the network for the output. Reference is made to page 15, lines 2-7, of the specification.

Grounds of Rejection to be Reviewed on Appeal

Grounds of Rejection 1 -- Claims 1-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent 6,442,608 by Knight et al., hereinafter "Knight", in view of United States Patent 6,389,466 by Zondag, hereinafter "Zondag."

Grounds of Rejection 2 -- Claims 24-42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent 6,005,861 by Humpleman, hereinafter "Humpleman", in view of United States Patent 6,567,979 by deCarmo, hereinafter "deCarmo."

Argument

A. Scope and Content of the Prior Art

Knight et al., U.S. Patent No. 6,442,608

Knight discloses a method and apparatus for managing access to a network system using a distributed authorization mechanism. In effect, Knight discloses an authorization mechanism for allowing users to establish a connection to a network system using a network access server. In particular, Knight discloses a system for controlling access to a network system by monitoring the number of sessions currently established for a particular entity (col. 6, lines 12-35). A local distributed session counter (DSC) determines whether a session can be authorized by determining if the number of sessions currently established for the entity does not

exceed a threshold value (col. 6, lines 22-35). If the number of currently established sessions does not exceed the threshold, the local DSC can authorize a new session (col. 6, lines 36-45). If the number of currently established sessions does exceed the threshold, the local DSC communicates with an authoritative DSC to determine whether the new session can be established (col. 6, lines 46-50). The authoritative DSC then determines whether the new session can be established by retrieving a "global" session count based on the sessions established for the entity with all local DSCs (col. 6, lines 51-67).

Applicant understands that the determination as to whether a session is allowed is based only on the number of active sessions and the number of allowed sessions for an entity. Specifically, Knight does not disclose determining whether the network system is available, just whether a new session is allowed. On the contrary, Knight assumes that the network system is available, and that access is granted to the network system on the basis of an entity's current sessions.

Zondag, U.S. Patent No. 6,389,466

Zondag discloses a method for managing the functionality of a consumer electronics system. In effect, Zondag discloses a communication system for controlling the functionality of a controlled station. More particularly, Zondag discloses a method for managing a consumer electronic system irrespective of the identity of a particular user and without considering an access policy for dictating user access to a particular service request. The functionality is controlled according to an abstract

representation (AR) associated with each controlled station (Abstract). An AR is defined as "an interface for software elements in the system to control the functionality of the controlled station by means of messages exchanged with the AR via the communications network" (col. 1, lines 10-13). Specifically, each controlled station has an associated AR. The AR is mapped into internal control mechanisms and controls underlying the hardware/software for each controlled station (col. 1, lines 45-50). In essence, the AR provides an interface for allowing the controller station to access the functionality of each controlled station.

Applicant understands each AR to control the interface between a controlled station and the controller station. In particular, the AR is device-dependent, and is in no way reliant on the identity of a user. Furthermore, the AR does not limit or control access to a controlled station based on the identity of a user. On the contrary, the AR is independent of a user's identity. While the AR can control the functionality of the controlled station, the functionality is not controlled based on user identity.

Humpleman, U.S. Patent No. 6,005,861

Humpleman discloses a home media network architecture. In particular, Humpleman teaches a network interface unit for permitting connection between different external networks and a home network. Humpleman does not disclose that media content is provided in response to a request by a user. Moreover, Humpleman does not provide an output permission system that controls access to different media content items.

DeCarmo, U.S. Patent 6,567,979

DeCarmo discloses a DVD environment in which a user specifies a source for providing media content. Specifically, deCarmo discloses a DVD environment for providing media content in response to a user specifying a particular DVD (col. 6. lines 18-39).

B. Differences Between Invention and Prior Art

Grounds of Rejection 1 -- Claims 1-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent 6,442,608 by Knight et al., hereinafter "Knight", in view of United States Patent 6,389,466 by Zondag, hereinafter "Zondag."

The following arguments are applicable to claims 1-23.

Independent Claims 1, 9, and 17 are patentable over Knight in view of Zondag because the combination of these two references does not disclose each and every element of these claims.

Knight, for example, does not disclose or suggest "receiving a service request indicating an identity of a user," as claimed (emphasis added). The Examiner cites Knight's col. 23, lines 25-63, as disclosing such a configuration, but this reference discloses only allowing access to a network system. Moreover, at col. 17, lines 38-46,

Knight teaches that a connection request is received. Knight does not teach, describe or suggest that the connection request is associated with a particular service. In contrast, Knight teaches a system for authorizing access to a network system in response to a connection request. In particular, the connection request is not a service request as claimed.

Knight therefore does not disclose or suggest a resource manager that receives a service request.

Moreover, Knight does not disclose or suggest "determining whether resources of said network necessary for carrying out said service request are available," as claimed. The Examiner cites Knight's col. 23, lines 25-63, as disclosing such a configuration, but this reference discloses only allowing access to a network system based on a local session threshold and global session information. Knight does not teach, describe or suggest that the authorization system determines whether a network resource is available. In contrast, Knight simply discloses authorizing a session with a network system.

Knight therefore does not disclose or suggest a resource manager that determines if a resource of a network necessary for carrying out a service request is available.

Applicant agrees with the Examiner's statement that Knight does not disclose a method for managing access to a plurality of consumer electronics devices.

Furthermore, Zondag does not disclose or suggest configuring a network resource manager with an access policy. Zondag discloses only the use of

"preferences" by which a user can identify particular preferred controlled stations. Such preferences are not an access policy as recited in Applicant's claims. On page 3, lines 1-3, of the action mailed 22 March 2004, the Examiner admits that Zondag does not disclose an access policy.

Zondag therefore does not disclose or suggest a resource manager that determines if a service request violates an access policy. Zondag discloses only obtaining a device's most recent "abstract representation" and organizing "abstract representations" among multiple devices.

Therefore, for at least the reasons discussed above, the combination of Knight and Zondag does not make Applicant's independent claims 1, 9, and 17 obvious.

In addition, Applicant argues that the Examiner has failed to state a prima facie case for obviousness because there is no explicit or implicit suggestion or motivation to combine Knight and Zondag. The Examiner argues that such a combination is obvious because "consumer electronics are gaining the ability to communicate digitally," and cites Zondag, col. 1, lines 19-29. Applicant understands Knight to teach an authorization system for accessing a network system and Zondag to teach management of a system of consumer electronics devices, Applicant maintains that neither of these two references provide either an explicit or implicit motivation to be combined with one another in a manner that results in the various restrictions recited in Applicant's claims.

Applicant respectfully argues that Knight teaches away from Applicant's claims because Knight discloses a method for authorizing access to a network system with

receiving a service request and without determining whether resources of the network necessary for carrying out the service request are available.

Since independent claims 1, 9, and 17 are patentable over the combination of Knight and Zondag, claims 2, 5-8, 10, 13-16, 18, and 21-23 depending from these independent claims are likewise patentable for at least the above reasons.

<u>The following arguments are applicable to claims 5, 13 and 21.</u>

Specifically with reference to dependent claims 5, 13 and 21, the Examiner cites Knight, col. 23, lines 25-63 as disclosing authenticating user identification information. Although Knight discloses that a particular user may have multiple associated entities, the identification of the particular user is not authenticated. In particular, Knight is silent as to the authentication of a user or entity. Accordingly, Knight does not disclose or suggest a resource manager that authenticates user identification information.

Grounds of Rejection 2 -- Claims 24-42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent 6,005,861 by Humpleman, hereinafter "Humpleman", in view of United States Patent 6,567,979 by deCarmo, hereinafter "deCarmo."

<u>The following argument is applicable to claims 24-42.</u>

Independent claims 24 and 33 are patentable over the combination of Humpleman and deCarmo because the combination of these two references does not disclose or suggest all limitations recited in these claims.

Applicant wishes to point out that independent claims 24 and 33 recite that a request for media content item output is made <u>without</u> specifying either the source or output device. Applicant also wishes to point out that the Examiner admits at page 5, item 17, of the action mailed 21 December 2004 that deCarmo discloses that a user <u>does specify</u> a source that provides a media content item. Therefore, by admission, the Examiner appears to acknowledge that deCarmo does not disclose or suggest Applicant's claim limitations that require that a source device not be specified. The Examiner cited deCarmo col. 6, lines 18-39, but this citation discloses only corporate control of a media distribution environment and a parental management system. This citation does not appear to address a user's request for a specific service, nor that such a request is made without specifying a source or output device as recited in Applicant's claims.

The Examiner argues that Humpleman discloses outputting a media content item if the user is permitted to receive such a media content item and if the necessary output resource is available, citing col. 9, line 44 through col. 10, line 14, in support. However, Humpleman does not disclose or suggest such an output permission system, and the Examiner's citation discloses only that the network interface unit may support audio, video, graphic and analog television. In particular, Humpleman does

not teach, describe or suggest any determination as to whether a user is permitted to receive a media content item.

The Examiner argues that Humpleman discloses, for example, receiving a network user's request for output of a media content item and cites col. 9, line 44 through col. 10, line 14, in support. However, this citation discloses only the functional ability of the network interface unit to provide various features. This citation does not disclose or suggest the limitation of "receiving a network user's request" as recited in Applicant's claims.

Moreover, Applicant agrees with the Examiner's statement that Humpleman does not disclose either the user specifying a media content item source or output device.

In addition, Applicant argues that the Examiner has failed to state a prima facie case for obviousness because there is no explicit or implicit motivation to combine Humpleman and deCarmo. The Examiner argues at page 5 of the action mailed 21 December 2004 that combining these two references is justified because the resulting system would allow a user to "access many devices over a network". Applicant maintains that such a motivation is overly broad and does not provide the legally required motivation to specifically combine these two references.

Accordingly, independent claims 24 and 33 are patentable over the combination of Humpleman and deCarmo for at least the reasons discussed above, and dependent claims 25-32 and 34-42 are likewise patentable over these two references for at least the reasons discussed for the independent claims.

The following argument is applicable to claims 26 and 35.

Specifically with reference to dependent claims 26 and 35, The Examiner cites deCarmo col. 6, lines 18-39 as disclosing a media output request that includes output at a particular location. But as discussed above, this citation discloses only corporate control of a media distribution environment and a parental management system. This citation does not disclose the limitations recited in these two of Applicant's claims.

The following argument is applicable to claims 28 and 37.

Specifically with reference to dependent claims 28 and 37, the Examiner cites Humpleman col. 9, line 44 through col. 10, line 14, as disclosing, for instance, receiving, during output of a first media content item in accordance with a request from a first user, a request from a second user to output a second media content item. But this citation discusses only the functions of a network interface unit and does not disclose or suggest the limitations recited in these two of Applicant's claims.

For the foregoing rationale, it is respectfully asserted that Claims 1-42 overcome the prior art cited of record, and are therefore allowable.
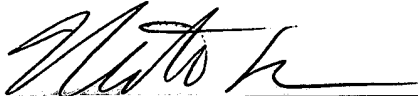
Conclusion

Applicant believes that pending Claims 1-23 are patentable over United States Patent 6,442,608 by Knight in view of United States Patent 6,389,466 by Zondag. Applicant further believes that Claims 24-42 are patentable over United States Patent 6,005,861 by Humpleman in view of United States Patent 6,567,979 by deCarmo. Applicant submits that Claims 1-42 are not shown or suggested by the combination of the cited references. As such, Applicant submits that Claims 1-42 are non-obvious to a person of ordinary skill in the art and, therefore, are patentable over the cited prior art.

Applicants respectfully request that the rejection of Claims 1-42 be reversed.

Respectfully submitted,
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Dated: 19 April, 2005

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1.   (Previously Presented) A method of operating a plurality of types of consumer electronic devices interconnected to form a network, said method comprising:

configuring a resource manager of said network with an access policy during network initialization wherein said access policy dictates a condition under which a particular service request is permissible to a user;

receiving a service request indicating an identity of a user;

based on said identity, said resource manager determining whether said service request violates said access policy;

provided said service request is permissible, said resource manager determining whether resources of said network necessary for carrying out said service request are available; and

provided said resources necessary for carrying out said service request are available, said resource manager transmitting control signals to said network causing said plurality of types of consumer electronic devices to carry out said service request.

2.   (Original) A method as recited in Claim 1 further comprising the step of returning a failure message to said user when said service request violates said access policy.

3. (Original) A method as recited in Claim 1 further comprising the step of maintaining a record of activities of said user.

4. (Previously Presented) A method as recited in Claim 3 wherein said determining whether said service request violates said access policy comprises the step of retrieving said record of activities of said user from a log database provided said access policy is dependent on user activities.

5. (Previously Presented) A method as recited in Claim 1 further comprising:

communicating user identification information of said user to said server;

authenticating said user identification information; and

provided said user identification information is unauthenticated, denying said user access to resources of said network.

6. (Previously Presented) A method as described in Claim 5 wherein said resources comprise hard resources and soft resources, and wherein said hard resources comprise said plurality of types of consumer electronic devices and wherein said soft resources comprise content information accessible by said plurality of types of consumer electronic devices.

7.   (Previously Presented) A method as recited in Claim 6 wherein said determining whether resources of said network necessary for carrying out said service request are available comprises the step of accessing a resource pool, wherein said resource pool contains information regarding availability of said hard resources.

8.   (Original) A method as recited in Claim 1 wherein said access policy is stored in a policy database accessible by said resource manager.

9.   (Previously Presented) A computer-usable medium having computer-readable program code embodied therein for causing a computer system to perform a method of managing resources within a network including a plurality of types of consumer electronic devices interconnected to form a network, said method comprising:

configuring a resource manager of said network with an access policy during network initialization wherein said access policy dictates a condition under which a particular service request is permissible to a user;

receiving a service request indicating an identity of a user;

based on said identity, said resource manager determining whether said service request violates said access policy;

provided said service request is permissible, said resource manager

determining whether resources of said network necessary for carrying out said

service request are available; and

provided said resources necessary for carrying out said service request are

available, said resource manager transmitting control signals to said network

causing said plurality of types of consumer electronic devices to carry out said service

request.

10.   (Original) A computer-usable medium as recited in Claim 9 wherein

said method further comprises the step of returning a failure message if said service

request violates said access policy.

11.   (Original) A computer-usable medium as recited in Claim 9 wherein

said method further comprises the step of maintaining a record of activities of said

user.

12.   (Previously Presented) A computer-usable medium as recited in Claim

11 wherein said determining whether said service request violates said access policy

comprises retrieving said record of activities of said user from a log database

provided said access policy is dependent on user activities.

13. (Previously Presented) A computer-usable medium as recited in Claim 12 wherein said method further comprises:

communicating user identification information of said user to said server;

authenticating said user identification information; and

provided said user identification information is unauthenticated, denying said user access to resources of said network.

14. (Previously Presented) A computer-readable medium as recited in Claim 13 wherein said resources comprise hard resources and soft resources, and wherein said hard resources comprise said plurality of types of consumer electronic devices and wherein said soft resources comprise content information accessible by said plurality of types of consumer electronic devices.

15. (Previously Presented) A computer-readable medium as recited in Claim 14 wherein said determining whether resources of said network necessary for carrying out said service request are available comprises accessing a resource pool, wherein said resource pool contains information regarding availability of said hard resources.

16. (Original) A computer-readable medium as recited in Claim 11 wherein said access policy is stored in a policy database accessible by said resource manager.

17.   (Previously Presented) A home server coupled to control a network of different types of consumer electronic devices, said home server comprising:

means for storing an access policy wherein said access policy dictates a condition under which a particular service request is permissible to a user;

means for receiving a service request indicating an identity of a user;

means for determining whether said service request violates said access policy based on said identity;

means for determining whether resources of said network necessary for carrying out said service request are available; and

means for causing respective ones of said different types of consumer electronic devices to carry out said service request provided said service request is permissible and provided said resources necessary for carrying out said service request are available.

18.   (Original) A home server as recited in Claim 17 further comprising means for returning a failure message when said service request violates said access policy.

19.   (Original) A home server as recited in Claim 17 further comprising database means for maintaining a record of activities of said user.

20.   (Original) A home server as recited in Claim 19 further comprising means for retrieving said record of activities of said user from database means provided said access policy is dependent on user activities.

21.   (Original) A home server as recited in Claim 17 further comprising:

means for communicating user identification information of said user to said server;

means for authenticating said user identification information; and

means for denying said user access to resources of said network provided said user identification information is unauthenticated.

22.   (Previously Presented) A home server as recited in Claim 21 wherein said resources comprise hard resources and soft resources, and wherein said hard resources comprise said different types of consumer electronic devices and wherein said soft resources comprise content information accessible by said different types of consumer electronic devices.

23.   (Previously Presented) A home server as recited in Claim 22 wherein said means for determining whether resources of said network necessary for carrying out said service request are available comprises means for accessing a resource pool that stores availability information of said hard resources.

24.   (Previously Presented) A method of operating a network comprising consumer electronics devices, comprising the acts of:

receiving a request from a user of the network, wherein the request comprises a request for output of a media content item without the user specifying a source providing the media content item to the network and without the user specifying an electronic device of the network for the output; and

outputting the media content item if the user is permitted to receive the media content item and if an electronic device of the network is available to output the media content item.

25.   (Previously Presented) The method of claim 24, wherein the network comprises a home network comprising consumer electronic devices.

26.   (Previously Presented) The method of claim 24, wherein the request comprises a request for the output at a particular location.

27.   (Previously Presented) The method of claim 24, wherein the media content item comprises audio and video.

28. .   (Previously Presented) The method of claim 24, wherein the media content item comprises a first media content item, and further comprising the acts of:

receiving, during output of the first media content item, a second request from a second user of the network, wherein the second request comprises a request for output of a second media content item without the second user specifying a source providing the second media content item to the network and without the second user specifying an electronic device for the output; and

outputting, during output of the first media content item, the second media content item if the second user is permitted to receive the second media content item and if a second electronic device of the network is available to output the second media content item.

29.   (Previously Presented) The method of claim 28, wherein the network comprises a home network comprising consumer electronic devices.

30.   (Previously Presented) The method of claim 28, further comprising the act of using a single functional manager to receive the first and the second requests.

31.   (Previously Presented) The method of claim 28, wherein the request for output of the first media content item comprises a request that the first media content item be output at a first location, and wherein the request for output of the second media content item comprises a request that the second media content item be output at a second location.

32.   (Previously Presented) The method of claim 28, wherein the first and the second media content items each comprise audio and video.

33.   (Previously Presented) A resource manager for managing a network comprising consumer electronic devices, the resource manager being:

configured to receive, via a user interface, a request from a user of the network, wherein the request comprises a request for output of a media content item without the user specifying a source providing the media content item to the network and without the user specifying an electronic device of the network for the output; and

configured to output the media content item if the user is permitted to receive the media content item and if an electronic device of the network is available to output the media content item.

34.   (Previously Presented) The resource manager of claim 33, wherein the network comprises a home network comprising consumer electronic devices.

35.   (Previously Presented) The resource manager of claim 33, wherein the request comprises a request for the output at a particular location.

36.   (Previously Presented) The resource manager of claim 33, wherein the media content item comprises audio and video.

37.   (Previously Presented) The resource manager of claim 33, wherein the media content item comprises a first media content item, the manager further being:

configured to receive, via the user interface and during output of the first media content item, a second request from a second user of the network, wherein the second request comprises a request for output of a second media content item without the second user specifying a source providing the second media content item to the network and without the second user specifying an electronic device for the output; and

configured to output, during output of the first media content item, the second media content item if the second user is permitted to receive the second media content item and if a second electronic device of the network is available to output the second media content item.

38.   (Previously Presented) The resource manager of claim 37, wherein the network comprises a home network comprising consumer electronic devices.

39.   (Previously Presented) The resource manager of claim 37, wherein the request for output of the first media content item comprises a request that the first media content item be output at a first location, and wherein the request for output of the second media content item comprises a request that the second media content item be output at a second location.

40. (Previously Presented) The resource manager of claim 38, wherein the first and the second media content items each comprise audio and video.

41. (Previously Presented) The method of claim 24 wherein the network comprises a plurality of devices capable of acting as a source for the media content item.

42. (Previously Presented) The resource manager of claim 33 wherein the network comprises a plurality of devices capable of acting as a source for the media content item.